

**Notice of Allowability**

Application No.

09/281,365

Examiner

Ping Lee

Applicant(s)

NEUMAN, DARREN D.

Art Unit

2615

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/6/06.
2. ☒ The allowed claim(s) is/are 1-4,6-14,16,17,20 and 21. They have been renumbered as claims 1-17 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Ping Lee  
Primary Examiner  
Art Unit: 2615

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Krueger on 4/5/06.

2. The application has been amended as follows:

Regarding claim 1, line 10, the phrase "indicates the" has been replaced with – includes--.

Regarding claim 1, line 11, the phrase "relative position of" has been deleted.

Regarding claim 7, line 4, the phrase  
--, wherein said display displays a null line — has been added before “;”.

Claim 18 has been canceled.

Claim 20 has been amended as the following:--

20. (currently amended) An audio calibration system, including:

a means for generating a substantially random noise signal;

a delay means coupled to said noise signal generating means for introducing time delays in the substantially random noise signal;

a means for controlling the amount of time delay introduced by said delay means to control the location of a null point; and

a filtering means coupled to said noise signal generating means for low pass filtering the substantially random noise signal to produce a widened region of reduced sound level. --

Claim 9 has been amended with the following:--

9. (currently amended) An audio calibration device, comprising:

a control logic;

an input device coupled to said control logic;

a noise generator for generating a substantially random noise signal and coupled to said control logic;

a low pass filter coupled to said noise generator for filtering the random noise signal from said noise generator;

an inverter coupled to said low pass filter;

a first delay module coupled to said inverter for introducing a time delay into an output signal from said inverter; and

a second delay module coupled to said low pass filter for introducing a time delay into an output signal from said filter, wherein said control logic controls the amount of time delay introduced by each delay module to thereby vary the location of a null line having a widened region of reduced sound level due to the operation of the low pass filter.—

3. The following is an examiner's statement of reasons for allowance: the prior art in the record fails to disclose, teach or suggest a system and a method for calibrating an audio system including two or more speakers in order to provide balance sound signal from each speaker to a listener as specified in claims 1, 7, 9, 16 and 20. Reference Dunlavy fails to disclose, teach or suggest to have a display displaying a visual image including a null line as specified in claims 1 and 7. Reference Dunlavy teaches an audible range testing random noise signal, however, Dunlavy fails to show a low pass filter to having a widened region of reduced sound level due to the operation of the low pass filter as specified in claims 9 and 20. References Plunkett and Dunlavy are directed to an audio system with only two speakers. They fail to teach or suggest how

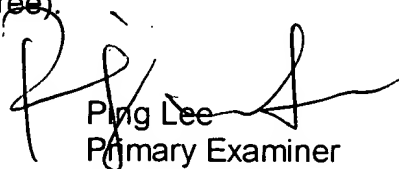
to calibrate an audio system with three or more speakers to provide a balance sound level from all speakers as specified in claim 16.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522. The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ping Lee  
Primary Examiner  
Art Unit 2615